

REMARKS

This paper is filed in response to the Office Action mailed November 7, 2007. Applicants acknowledge that claims 2-5, 11-16, 18-21, and 27-36 are withdrawn from consideration at this time. Claims 1, 6-10, 17, and 22-26 are rejected.

Applicants have amended the claims to more clearly define the claim-designated bola amphiphiles as triblock bola amphiphiles comprising a lyophobic moiety capable of hydrogen bonding and having a first end and a second end; the first end of said lyophobic moiety chemically coupled to a first lyophilic head group; and the second end of said lyophobic moiety chemically coupled to a second lyophilic head group, wherein one lyophilic head group is selected from the group consisting of oligo(ethylene glycol) chains and cyclic oligo(ethylene glycols) chains, and the other lyophilic head group comprises an amino acid sequence comprising hydroxyl functionalities from L-serine, charged amino or carboxylic acid groups derived from aspartic acid or lysine, or an amino acid sequence selected from glutamic acid-glutamic acid-glutamic acid and lysine-lysine-lysine. Support for this amendment is found in the specification, for example, in paragraphs [0028], [0029], [0038], and [0039]. Moreover, claim 1 was amended to recite that the triblock bola amphiphiles were in a composition with a solvent. Support for this amendment is found, for example, paragraph [0032]. Finally, claims 10-12, 21, and 26-28 were canceled. No new matter has been added by these amendments and entry thereof is respectfully requested.

35 USC 112, FIRST PARAGRAPH

Claims 1, 6-9, 17, and 22-25 are rejected under 35 USC 112, first paragraph, as allegedly containing subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Action states that it is unclear what constitutes a “peptidic” versus a “non-peptidic” compound as “there

would be no agreement as to the dividing line between what qualifies as ‘peptidic’ and ‘non-peptidic’” in the series of compounds set forth at page 3 of the Office Action. The Action concludes that there is no descriptive support for these two terms.

Applicants respectfully disagree, but have amended the claims to more clearly define the claimed invention. In particular, Applicants have amended the claims to define one lyophilic head group as being selected from the group consisting of oligo(ethylene glycol) chains and cyclic oligo(ethylene glycols) chains. This amendment is supported, for example, in paragraphs [0028] and [0037]. Furthermore, the claim was amended to recite that the second lyophilic head group comprises an amino acid sequence comprising hydroxyl functionalities from L-serine, charged amino or carboxylic acid groups derived from aspartic acid or lysine, or the amino acid sequence, glutamic acid-glutamic acid-glutamic acid or lysine-lysine-lysine. Support for this amendment is found, for example, in paragraphs [0028], [0037], [0038], and [0039]. In view of the foregoing, Applicants respectfully submit that the rejection has been overcome and withdrawal of the rejection is respectfully requested.

35 USC 112, SECOND PARAGRAPH

Claims 1 and 17 are rejected under 35 USC 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter, which Applicants regard as the invention.

The claim term “composition” is rejected in the Action. The Action states that a composition “must have at least two components, otherwise it is a compound,” whereas claim 1 mandates the presence of an undescribed second compound or material. Applicants disagree with the rejection, but have included a solvent in the claimed compositions. As

such, Applicants believe that the rejection is rendered moot and withdrawal of the rejection is requested.

35 USC 103

Claims 1, 6-10, 22, and 26 are rejected under 35 USC 103 as allegedly being unpatentable over Darcy (US2003/0092672).

The Action states that Darcy discloses bola amphiphiles, which form micelles. The Action goes on to suggest that the rings of the phenyl, naphthyl, and quinoliny groups in the cyclic molecule described in the Action does have a “first end” and a “second end,” each corresponding to the point of attachment. The rejection concludes that because the instant claims do not exclude cyclic structures, the rejection is maintained.

Applicants disagree with the interpretation of Darcy, but have amended the claims to further clarify the present invention. In particular, Applicants have amended the claims to recite a composition comprising a triblock bola amphiphile, comprising two lyophilic head groups attached to a lyophobic moiety, wherein one lyophilic head group is selected from the group consisting of oligo(ethylene glycol) chains and cyclic oligo(ethylene glycols) chains and the other lyophilic head group comprises an amino acid sequence comprising hydroxyl functionalities from L-serine, charged amino or carboxylic acid groups derived from aspartic acid or lysine, or the amino acid sequence, glutamic acid-glutamic acid-glutamic acid or lysine-lysine-lysine. Applicants respectfully believe that these amendments overcome the Darcy reference. In particular, Applicants believe that the Darcy reference does not describe triblock bola amphiphiles having a lyophilic head group comprising an amino acid sequence comprising hydroxyl functionalities from L-serine, charge amino or carboxylic acid groups derived from aspartic acid or lysine, or the amino acid sequence, glutamic acid-glutamic acid-glutamic acid or lysine-lysine-lysine. Accordingly, withdrawal of the rejection is appropriate.

CONCLUSION

In conclusion, Applicants believe that this amendment overcomes the outstanding rejections. Applicants, however, invite the Examiner to call the undersigned to discuss any remaining issues to expedite the prosecution of this application.

Respectfully submitted,

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Date: 7 March 2008